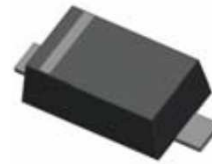


**Small Signal Product**
**SOD-523F  $I_{FSM}=4A$  30V/200mA Schottky Diode**
**FEATURES**

- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mounted Device
- Moisture sensitivity level 1
- Pb free and RoHS compliant
- Halogen-free according to IEC 61249-2-21 definition


**MECHANICAL DATA**

- Case: Flat lead SOD-523F package
- High temperature soldering guaranteed: 260°C/10s
- Weight: 9.9mg (approximately)

**SOD-523F**
**APPLICATION**

- Portable consumer electronic devices

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Working Peak Reverse Voltage	$V_{RWM}$	30	V
DC Blocking Voltage	$V_R$	30	V
RMS Reverse Voltage	$V_{R(RMS)}$	21	V
Forward Continuous Current	$I_{FM}$	200	mA
Peak Forward Surge Current @ $t < 10\text{ms}$	$I_{FSM}$	4	A
Repetitive Peak Forward Current @ $t < 1.0\text{s}$	$I_{FRM}$	500	mA
Power Dissipation	$P_D$	200	mW
Thermal Resistance from Junction to Ambient	$R_{thJA}$	500	$^\circ\text{C/W}$
Junction Temperature	$T_J$	125	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 55 to + 150	$^\circ\text{C}$

PARAMETER	TEST CONDITION	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	at $I_R = 10 \mu\text{A}$	$V_{(BR)}$	30		V
Reverse Current	at $V_R = 25 \text{V}$	$I_R$		0.5	$\mu\text{A}$
Forward Voltage	at $I_F = 2\text{mA}$	$V_F$	0.26	0.33	V
	at $I_F = 15\text{mA}$			0.45	
	at $I_F = 200\text{mA}$			1	V
Capacitance Between Terminals	$V_R=1\text{V}$ , $f=1.0\text{MHz}$	$C_T$	--	10	pF
Reverse Recovery Time	$I_F=I_R=10\text{mA}$ $I_{rr}=0.1I_R$ , $R_L=100\Omega$	$t_{rr}$	--	5	ns

**Small Signal Product**

**RATINGS AND CHARACTERISTICS CURVES**

( $T_A=25^\circ\text{C}$  unless otherwise noted)

Fig.1 Typical Forward Characteristics

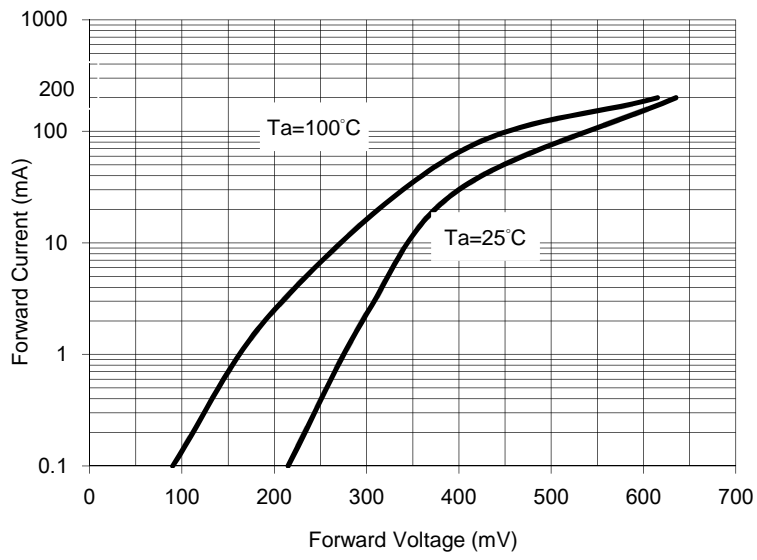


Fig. 2 Typical Reverse Characteristics

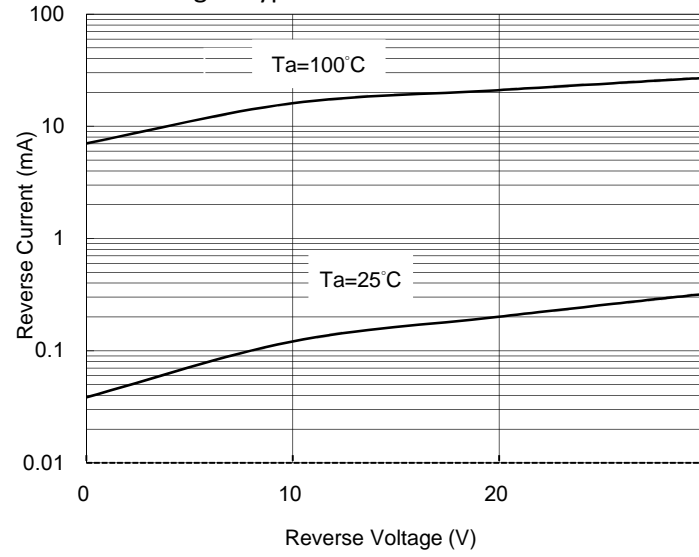


Fig. 3 Power Derating Curve

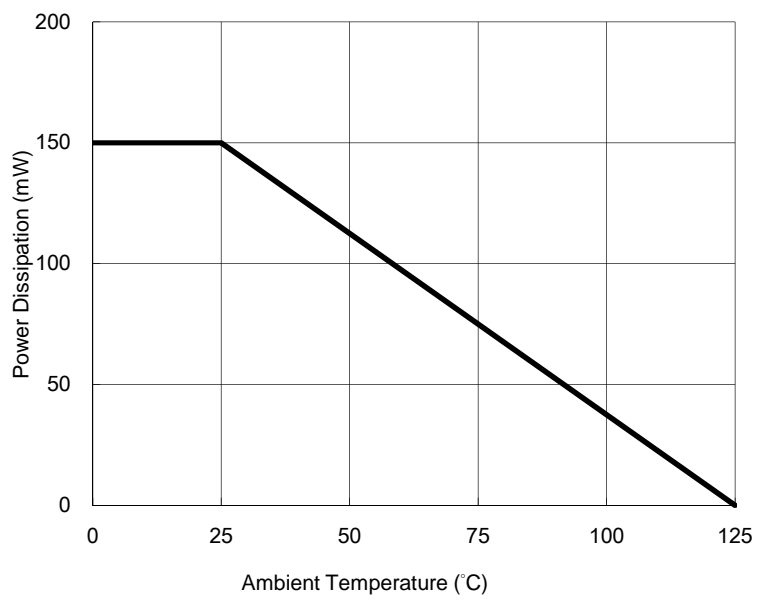
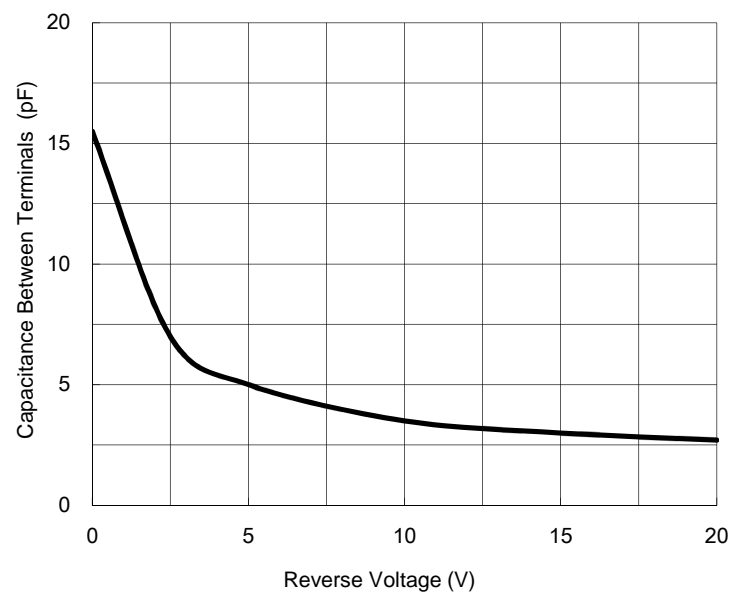


Fig. 4 Typical Capacitance Characteristics



**Small Signal Product**
**ORDERING INFORMATION**

<b>PART NO.</b>	<b>MANUFACTURE CODE</b>	<b>PACKING CODE</b>	<b>GREEN COMPOUND CODE</b>	<b>PACKAGE</b>	<b>PACKING</b>	<b>MARKING</b>
BAT43X	(Note)	RS	G	SOD-523F	8K / 7" Reel	S8

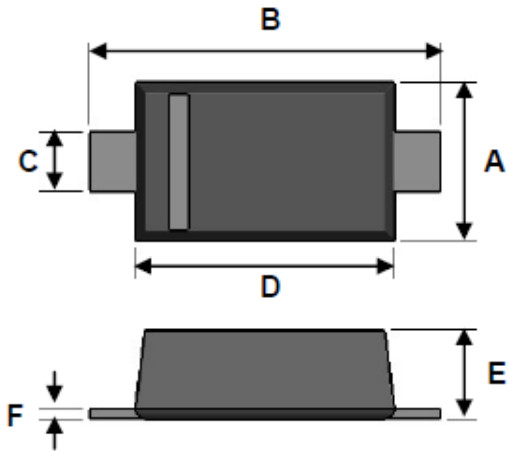
Note: Indicator of manufacturing site for manufacture special control, if empty means no special control requirement

**EXAMPLE**

<b>PREFERRED P/N</b>	<b>PART NO.</b>	<b>MANUFACTURE CODE</b>	<b>PACKING CODE</b>	<b>GREEN COMPOUND CODE</b>	<b>DESCRIPTION</b>
BAT43X RSG	BAT43X		RS	G	Green compound
BAT43X-M0 RSG	BAT43X	M0	RS	G	Green compound

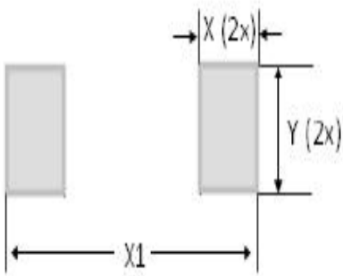
**Small Signal Product**

**PACKAGE OUTLINE DIMENSIONS  
SOD-523F**



DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	0.70	0.90	0.028	0.035
B	1.50	1.70	0.059	0.067
C	0.25	0.40	0.010	0.016
D	1.10	1.30	0.043	0.051
E	0.50	0.77	0.020	0.030
F	0.07	0.20	0.003	0.008

**SUGGEST PAD LAYOUT**



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
X	0.60	0.024
X1	2.30	0.091
Y	0.80	0.031

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